**The Nature of Matter**

**Terminology and Concepts Activity Key**

1. Fill in the blanks with the proper word (spelled correctly).
   1. When substances are together but not joined chemically, the result is called a \_\_\_MIXTURE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   2. The lightest of the three elementary particles is the \_\_\_ELECTRON\_\_\_\_\_\_\_\_\_.
   3. The \_\_\_ATOM\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the smallest unit of matter.
   4. The elementary atomic particle having no charge is the \_\_\_NEUTRON\_\_\_\_\_\_.
   5. Anything that occupies space is called \_\_\_MATTER\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   6. The \_\_\_PROTON\_\_\_\_\_ has a positive charge and is in the nucleus of an atom.
   7. \_\_\_AN ELEMENT\_\_\_\_\_\_\_\_\_\_\_ is matter that is composed of identical atoms.
   8. Atoms of different elements, when joined together chemically, are called \_\_\_\_\_ A COMPOUND\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   9. The basic unit of a compound is the \_\_\_MOLECULE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Are free electrons found in the “inner” or “OUTER” orbits of an atom?
3. Describe “random drift” of electrons in an element.

It is the random movement of an electron from the outer orbit of one atom to the outer orbit of another.

1. Which one of the following statements is a true statement about the nature of matter?

**A** Two electrons that are close to each other will attract each other.

**B** Two neutrons that are close to each other will attract each other.

**C** Two neutrons that are close to each other will repel each other.

**D** Two protons close to each other will repel each other.

1. Which of the following statements is a false statement about the nature of matter?

**A** Two electrons that are close to each other will repel each other.

**B** Two neutrons that are close to each other will do nothing to each other.

**C** Two neutrons that are close to each other will attract each other.

**D** A proton and an electron close to each other will attract each other.

1. Label the parts of the atom in the diagram below.

A Electrons

B Nucleus

C Neutron

D Proton

